

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) A peptide of a size comprised between 5 and 40 amino acids, originating from a cytokine, characterized in that at least one of its amino acids comprises at least one of its atoms separated by a distance  $d$  of less than 5 angströms from an atom of the receptor corresponding to said cytokine, the spacing  $d$  being evaluated on the basis of structural data, with the exception

- of the peptides comprised between the 2nd and 3rd cysteine of h RANTES, MIP 1 $\alpha$  and MIP 1 $\beta$ , and
- of the peptides comprised between amino acids 123 and 140 of IFN  $\alpha$ .

2. (Currently Amended) A peptide according to claim 1, characterized in that two of its consecutive amino acids comprise at least one of their atoms separated by a distance  $d$

of less than 5 angströms from an atom of the receptor  
corresponding to said cytokine.

3. (Currently Amended) A peptide according to ~~one of~~  
~~claims 1 and 2~~ claim 1, characterized in that it is chosen from  
the fragments of the following cytokines: TGF  $\beta$ , IL1  $\beta$ , VEGF,  
TNF  $\alpha$ , IFN  $\alpha$  and  $\gamma$ , IL 4, 5, 6, 10, 12, 13, 15, 18, 23, IP10,  
MIP 1 $\alpha$  and 1 $\beta$ , and Rantes.

4. (Currently Amended) A peptide according to ~~one of~~  
~~claims 1 to 3~~ claim 1, characterized in that it is chosen from  
the fragments of the following cytokines: TGF  $\beta$ , IL1  $\beta$ , VEGF,  
TNF  $\alpha$ , IFN  $\gamma$ , IL 4, 5, 6, 10, 12, 13, 15, 18, 23.

5. (Currently Amended) A peptide according to ~~one of~~  
~~claims 1 to 4~~ claim 1, characterized in that d is less than 4  
angströms.

6. (Currently Amended) A peptide according to ~~one of~~  
~~claims 1 to 5~~ claim 1 characterized in that 3 or 4 consecutive  
amino acids of the cytokine peptide correspond to this same  
spacing criterion.

7. (Currently Amended) A peptide according to ~~one of~~  
~~claims 1 to 6~~ claim 1 characterized in that it comprises less  
than 30 amino acids.

8. (Original) A peptide as defined in claim 1, chosen  
from or originating from those the names of which follow:

- hIL1 $\beta$ (Human Interleukin 1 beta) 1-APVRSLNCTL-10 (SEQ ID No. 1) 29-LHLQGQDMEQQ-39 (SEQ ID No. 2) 123-STSQAENMPV-132 (SEQ ID No. 3)
- hvEGF (Human vascular Endothelial Growth Factor) 73-IMRIKPHQGQHIGEMS-88 (SEQ ID No. 4)
- hTNF $\alpha$ (Human Tumor Necrosis Factor alpha) 20-PQAEGQLQWLNRRANALLANGVELRDNQLVVPSEG-54 (SEQ ID No. 5) 80-ISRIAVSYQTKVNLLS-95 (SEQ ID No. 6) 124-FQLEKGDRLSAEINR-138 (SEQ ID No. 7)
- hIFN $\gamma$ (Human Interferon gamma) 1-MQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKN-36 (SEQ ID No. 8) 118-MAELSPAAKTGKRKRS-133 (SEQ ID No. 9)
- hIL10 (Human Interleukin 10) 20-PNMLRDLRDAFSRVKTFQMKDQLDNLLLKE-50 (SEQ ID No. 10)

<p>- hIL4 (Human Interleukin 4)</p> <p>5-ITLQEIIKTLNSL-17 (SEQ ID No. 11)</p> <p>70-AQQFHRHKQLIRFLKRLDRNLWGLAG-95 (SEQ ID No. 12)</p>
<p>- hIL12p40 (Human Interleukin 12 under unite p40)</p> <p>80-LLLHKKEDGIWSTDILKDQKEPKNKTF LRCE-110</p> <p>(SEQ ID No. 13)</p> <p>135-KSSRGSSDPQG-145 (SEQ ID No. 14)</p>
<p>- hIL18 (Human Interleukin 18)</p> <p>1-YFGKLESKLSVIRNLNDQVLFIDQGNRPLFEDMTD-35</p> <p>(SEQ ID No. 15)</p> <p>68-CEKISTLSCEN-78 (SEQ ID No. 16)</p> <p>141-EDELGDRSIMFTVQ NED-157 (SEQ ID No. 17)</p>
<p>- hIP10 (Human Interferon gamma inducible protein)</p> <p>39-VEIIATMKKKG EKRC LNPESKA-60 (SEQ ID No. 18)</p>
<p>- hIL5 (Human Interleukin 5)</p> <p>1-IPTSALVKETLALLSTHRTLLIANET-26 (SEQ ID No. 19)</p> <p>96-LQEFLGVMNTEWI-108 (SEQ ID No. 20)</p>
<p>- hTGFβ2 (Human Transforming Growth Factor beta type 2)</p> <p>25-KRDLGWKWIHE-35 (SEQ ID No. 21)</p> <p>87-TILYYIGKTPKIEQ -100 (SEQ ID No. 22)</p>
<p>- hIL15 (Human Interleukin 15)</p> <p>1-ANWVNVISDLKKI-13 (SEQ ID No. 23)</p> <p>74-SSNGNVTESGCKECEEELEKKNIKEFLQSFVHIVQMF-111</p> <p>(SEQ ID No. 24)</p>

<p>- hIL6 (Human Interleukin 6)</p> <p>28-KQIRYILDGISA-39 (SEQ ID No. 25)</p> <p>114-RAVQMSTKVLIQFLQKKAKNLDAITTPDPTTNASLL-149</p> <p>(SEQ ID No. 26)</p>
<p>- hMIP1<math>\alpha</math> (Human Macrophage Inflammatory Protein alpha)</p> <p>51-ADPSEEWVQKYVSDLELSA -69 (SEQ ID No. 27)</p>
<p>- hMIP1<math>\beta</math> (Human Macrophage Inflammatory Protein beta)</p> <p>52-ADPSESWVQEYVYDLELN-69 (SEQ ID No. 28)</p>
<p>- hIL13 (Human Interleukin 13)</p> <p>8-TALRELIEEL-17 (SEQ ID No. 29)</p> <p>57-CSAIEKTQRMLSGFCPHKVSAGQFSS-82 (SEQ ID No. 30)</p>
<p>- hIL23 (Human Interleukin 23)</p> <p>52 GHMDLREEGDEETT 65 (SEQ ID No. 31)</p> <p>115 LLPDSPVGQLHASLLGLSQ 133 (SEQ ID No. 32)</p> <p>160 LLRFKILRSLQAFVAVAARV 179 (SEQ ID No. 33)</p>
<p>- hRANTES (Human Regulated upon Activation Normal T-cell expressed)</p> <p>51-ANPEKKWVREYINSLEMS-68 (SEQ ID No. 34)</p>

-hIFN $\alpha$  (Human Interferon alpha)

12-RRTLMLLAQMRK-23 (SEQ ID No. 35)

95-LEACVIQGVGVTTETPLMKEDSILAVRK-121 (SEQ ID No. 36)

or a fragment of said peptides.

9. (Currently Amended) A peptide derivative as defined in ~~one of claims 1 to 8~~ claim 1 by deletion, substitution, addition, cyclization, stereochemical modification (use of D series amino acids), or functionalization (such as acylation) of one or more amino acids of said peptide.

10. (Currently Amended) An immunogenic compound characterized in that it comprises a peptide or peptide derivative as defined in ~~one of claims 1 to 9~~ claim 1, it being understood that it does not comprise other epitopes of said cytokine and in that it is capable of generating in a subject antibodies recognizing the native cytokine.

11. (Currently Amended) A peptide or peptide derivative or immunogenic compound as defined in ~~one of claims 1 to 10~~ claim 1 or comprised between amino acids 123 and 140 of

IFN  $\alpha$ , for its use in a method of therapeutic treatment of the human or animal body.

12. (Currently Amended) ~~Use of~~ A method for the treatment or prevention of diseases linked to an excess or to the presence of cytokines, comprising administering a peptide or peptide derivative or immunogenic compound as defined in one of claims 1 to 10 claim 1 or comprised between amino acids 123 and 140 of IFN  $\alpha$ , for the preparation of a curative or preventative medicament intended for the treatment or prevention of the diseases linked to an excess or to the presence of cytokines.

13. (Currently Amended) ~~Use of~~ A method for the treatment of an auto-immune disease, comprising administering a peptide or peptide derivative or immunogenic compound as defined in one of claims 1 to 10 claim 1 or comprised between amino acids 123 and 140 of IFN  $\alpha$ , for the preparation of a curative or preventative medicament intended for the treatment of an auto-immune disease.

14. (Currently Amended) A pharmaceutical composition which contains at least one peptide or peptide derivative or immunogenic compound as defined in ~~one of claims 1 to 10~~ claim 1

In re of: 10/510,116 ZAGURY9

or comprised between amino acids 123 and 140 of IFN  $\alpha$ , as active ingredient.